

We claim:

1. A multifunction warning device comprising:

a base having a top portion and a bottom portion having a first electric socket therein;

5 plural legs, each of said plural legs being pivotally secured to said base, each of said plural legs having plural illuminating elements thereon, said plural illuminating elements being electrically connected to said first electric socket; and

a rechargeable device comprising:

10 a shell having a charging connector detachably plugged into a said first electric socket, said charging connector having a first electric contact, a second electric contact and a third electric contact;

plural rechargeable batteries, installed within said shell;

15 a charging circuit, installed within said shell, said charging circuit being electrically connected to said plural rechargeable batteries and a first electrical point between said first electric contact and said second electric contact for recharging said plural rechargeable batteries through said first electric contact and said second electric contact; and

20 a discharging circuit, installed within said shell, said discharging circuit being electrically connected to said plural rechargeable batteries and a second electrical point between said first electric contact and said third electric contact for providing electric power from said plural rechargeable batteries to said plural illuminating elements through said first electric contact, said third electric contact and said first electric socket;

25 wherein said plural legs are stretchable to be a support and retractable to be assembled as a baton.

2. The multifunction warning device of claim 1, further comprising an illuminating device comprising: a body mounted at said top portion of said base and a lamp mounted at said body, said lamp being electrically connected to said rechargeable device.

5           3. The multifunction warning device of claim 1, wherein said base further comprising a first switch thereon for deciding whether said rechargeable device is electrically connected to said plural illuminating elements.

4. The multifunction warning device of claim 1, wherein said plural legs are three legs, said multifunction warning device further comprising three first rods and a  
10 first ring, each of said three first rods being pivotally connected to a middle portion of each of said three legs with one end and pivotally connected to said first ring with the other end.

5. The multifunction warning device of claim 1, wherein each of said plural legs comprises:

15           a longitude frame having said plural illuminating elements thereon, said longitude frame being pivotally secured to said base; and

          a light pervious shell fastened to said longitude frame;

          wherein said light pervious shell covers said plural illuminating elements.

6. The multifunction warning device of claim 1, wherein said plural  
20 illuminating elements are LEDs.

7. The multifunction warning device of claim 2, wherein said body is detachably mounted to said top portion of said base, said body further comprising a second electric socket therein being pluggable by said charging connector.

8. The multifunction warning device of claim 2, wherein said body of said  
25 illuminating device further comprising a second switch thereon for deciding whether

said rechargeable device is electrically connected to said lamp of said illuminating device.

9. The multifunction warning device of claim 2, wherein said lamp is pivotally mounted at said body.

5           10. The multifunction warning device of claim 2, further comprising a manual power generator installed in said body for manually providing electric power to said lamp.

11. The multifunction warning device of claim 4, further comprising three bars, each of said three bars being engaged with two adjacent legs for enhancing strength of  
10       said three legs, each of said three bars having two protrusions on its two ends respectively, each of said three legs comprising two holes therein, wherein one of said two protrusions is engaged with a hole of a leg and the other protrusion is engaged with a hole of an adjacent leg.

12. The multifunction warning device of claim 4, further comprising a bottom  
15       cover having three engaging hooks thereon, each of said plural legs having a positioning hook at its end, wherein each of said three engaging hooks is engaged with each of said positioning hook when the bottom cover is tightened to assemble said plural legs as a baton.

13. The multifunction warning device of claim 4 further comprising three  
20       second rods and a second ring, each of said three second rods pivotally connected to a front portion of each of said three legs with one end and pivotally connected to said second ring with the other end.

14. The multifunction warning device of claim 7, wherein said body of said  
illuminating device further comprising a second switch and a third switch thereon,  
25       wherein said second switch is for deciding whether said rechargeable device is

electrically connected to said lamp of said illuminating device and said third switch is for deciding whether said rechargeable device is electrically connected to said plural illuminating elements.

15. The multifunction warning device of claim 7, wherein said top portion of  
5 said base forms an outer threaded periphery engagable with an inner threaded periphery in said body of said illuminating device.

16. The multifunction warning device of claim 10, wherein said manual power generator comprising:

a housing;

10 a power generating unit, installed interior of said housing for generating electric power;

a handle, having an end pivotally installed in front of said housing, said handle having a cambered rack at another end thereof;

a driving set, installed interior of said housing for driving said power  
15 generating unit, said driving set comprising a first speed changing gear, and a second speed changing gears, said first speed changing gear comprising a first gear and a first pinion engaged with said cambered rack, said first gear and said first pinion being coaxially mounted, said second speed changing gear comprising a second gear, a second pinion engaged with said first gear, a prism plate having two blocks pivotally  
20 connected thereto, and a rotary wheel coaxially secured to said second gear, said prism plate being mounted integrally with said second pinion, said second gear having an inner wall having several teeth grooves, each of said several teeth grooves having a vertical stopping wall, said rotary wheel being coaxially secured to an input axis of said power generating unit;

a fastener, installed on an inner surface of said housing for being engaged with a slot of said handle in order said handle to be in alignment with said surface of said housing when said manual power generator is not used; and

a spring, installed within said housing for resisting against said handle, thereby  
5 said handle can be restored automatically.

17. The multifunction warning device of claim 12, further comprising a rope connected said first ring to said bottom cover.

18. The multifunction warning device of claim 15, wherein said top portion of said base further comprises plural outer elastic electric contacts thereon and said body  
10 of said illuminating device further comprises plural inner ring electric contacts therein, said plural outer elastic electric contacts being electrically connected to said plural inner ring electric contacts when said body is threadly mounted at said top portion of said base.